

APPLICANT(S): ZIV, Ilan, et al.  
 SERIAL NO.: 10/560,747  
 FILED: December 15, 2005  
 Page 2

RECEIVED  
 CENTRAL FAX CENTER

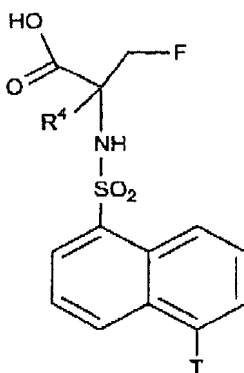
NOV 23 2007

### AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

Claims 1-47 (Cancelled)

48. (Currently Amended) A compound according to Claim 47, represented by the structure as set forth in formula (VI):



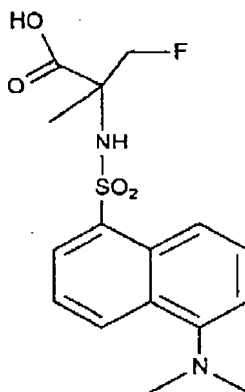
(VI)

wherein T is as defined in Claim 47: OH, -O-CH<sub>3</sub>, -O-(CH<sub>2</sub>)<sub>y</sub>-CH<sub>3</sub>, NH<sub>2</sub>, N(CH<sub>3</sub>)<sub>2</sub>, N[(CH<sub>2</sub>)<sub>3</sub>CH<sub>3</sub>]<sub>2</sub>, -N(CH<sub>3</sub>)[(CH<sub>2</sub>)<sub>2</sub>CH<sub>3</sub>], -N(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>3</sub> or -N(CH<sub>3</sub>)[(CH<sub>2</sub>)<sub>3</sub>CH<sub>3</sub>]; wherein y stands for an integer of 1, 2, or 3;

T and R<sup>4</sup> is hydrogen or a C<sub>1</sub>, C<sub>2</sub>, C<sub>3</sub>, C<sub>4</sub>, C<sub>5</sub> or C<sub>6</sub> straight or branched alkyl, and wherein the F atom is <sup>18</sup>F or <sup>19</sup>F or mixtures of fluorine isotopes a mixture of fluorine isotopes.

APPLICANT(S): ZIV, Ilan, et al.  
SERIAL NO.: 10/560,747  
FILED: December 15, 2005  
Page 3

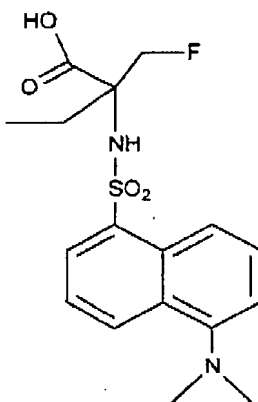
49. (Currently Amended) A compound according to Claim 47 48, represented by the structure as set forth in formula (VII):



(VII)

wherein the F atom is <sup>18</sup>F or <sup>19</sup>F or a mixture of fluorine isotopes.

50. (Currently Amended) A compound according to Claim 47 48, represented by the structure as set forth in formula (VIII):

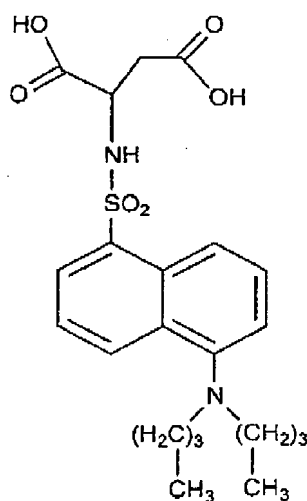


(VIII)

APPLICANT(S): ZIV, Ilan, et al.  
SERIAL NO.: 10/560,747  
FILED: December 15, 2005  
Page 4

wherein the F atom is  $^{18}\text{F}$  or  $^{19}\text{F}$  or ~~mixtures of fluorine isotope~~ a mixture of fluorine isotopes.

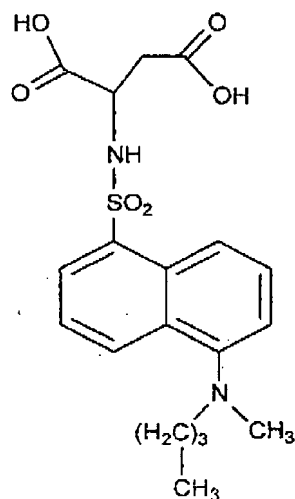
51. (Currently Amended) A compound according to Claim 47 represented by the structure as set forth in formula (IX):



(IX)

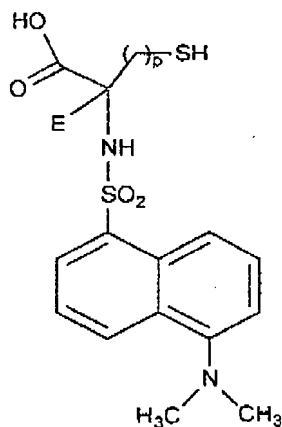
52. (Currently Amended) A compound according to Claim 47, represented by the structure as set forth in formula (X):

APPLICANT(S): ZIV, Ilan, et al.  
SERIAL NO.: 10/560,747  
FILED: December 15, 2005  
Page 5



(X)

53. (Currently Amended) A compound according to Claim 47, represented by the structure as set forth in formula (XI):



(XI)

wherein E is C<sub>1</sub>, C<sub>2</sub>, C<sub>3</sub> or C<sub>4</sub> alkyl; C<sub>1</sub>, C<sub>2</sub>, C<sub>3</sub> or C<sub>4</sub> fluoroalkyl; or C<sub>1</sub>, C<sub>2</sub>, C<sub>3</sub> or C<sub>4</sub> hydroxyalkyl; p stands for an integer of 1 or 2.

APPLICANT(S): ZIV, Ilan, et al.  
SERIAL NO.: 10/560,747  
FILED: December 15, 2005  
Page 6

54. (Previously presented) A compound according to Claim 53, wherein p is 1.

55 - 67 (Cancelled)

68. (New) A method for selective targeting of a chemical compound to a cell undergoing perturbation of the normal organization of its plasma membrane (PNOM-cell) present in a cell population, comprising the step of contacting the cell population with a perturbed membrane binding compound (PMBC), being a chemical compound represented by the structure set forth in formula (VIII) of Claim 50, thereby selectively targeting the chemical compound to the PNOM-cells within the cell population.

69. (New) A method of detecting the presence of PNOM-cells within a cell population selected from: a cell culture, a tissue in a human patient and a tissue in an animal, comprising the steps of:

(i) administering the cell population with a PMBC, or a conjugate comprising said PMBC and a marker for imaging, wherein said PMBC is represented by the structure set forth in formula (VIII) of Claim 50; and

(ii) determining the amount of PMBC bound to cells in the cell population wherein a bound amount which is significantly higher than a control indicates the presence of PNOM-cells within the cell population.

70. (New) A method according to Claim 68, wherein the PNOM-cell is a cell undergoing a death process, an apoptotic cell or an activated platelet.

71. (New) A method for selective targeting of a PNOM-cell present in a cell population, comprising the step of:

(i) contacting the cell population with a PMBC, or a conjugate comprising said PMBC and a marker for imaging, wherein said PMBC is represented by the structure set forth in formula (VIII) of Claim 50; and

(ii) determining the amount of PMBC bound to cells in said cell population, wherein a bound amount which is significantly higher than a control indicates the presence of said PNOM-cells within the cell population.